

HaynesPro[®]

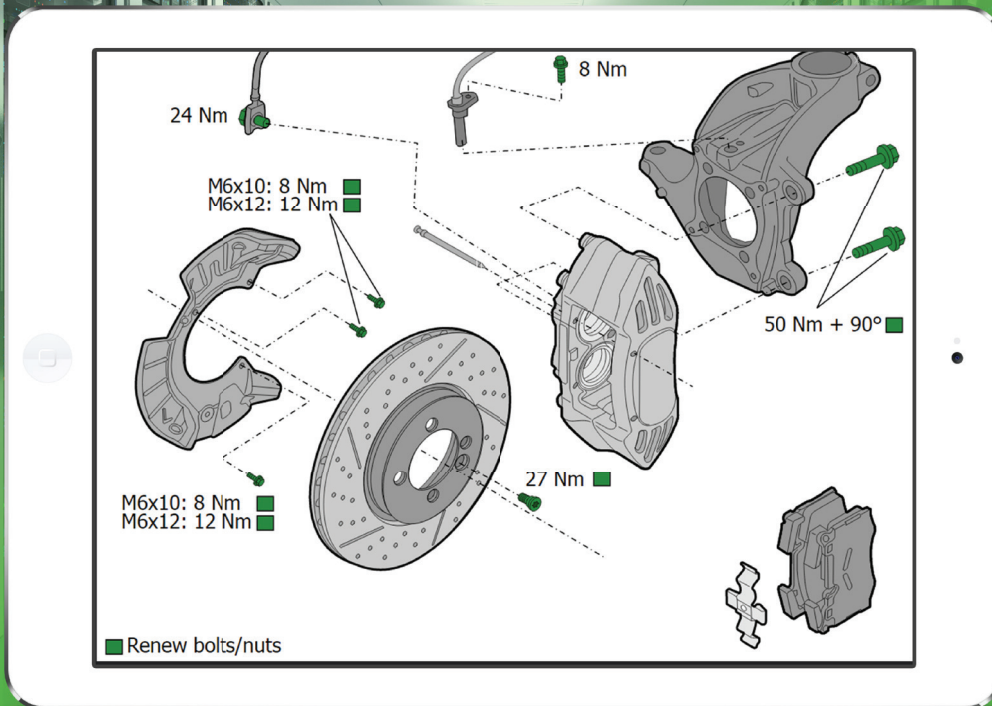
Clearly better data.



HaynesPro[®] WorkshopData[™]

HaynesPro is a member of the Haynes Publishing Group





HaynesPro®

A leading **supplier** of online **technical information**.

Established in 1995, fuelled by a passion for the generation and dissemination of high-value data, HaynesPro is, today, a leading supplier of online technical information to all areas of the automotive aftermarket.

It's a one-stop shop for the management, provision and integration of repair and maintenance data, with the sole aim of creating value through innovation, integration, partnership and increased efficiency. These four concepts underpin every area of HaynesPro's activities in a market that is constantly evolving, and which requires data that is robust, reliable and contemporaneous, delivered instantly and around the clock in a form to suit the user.



WorkshopData™

It's the result of over **20 years' experience** of data management.

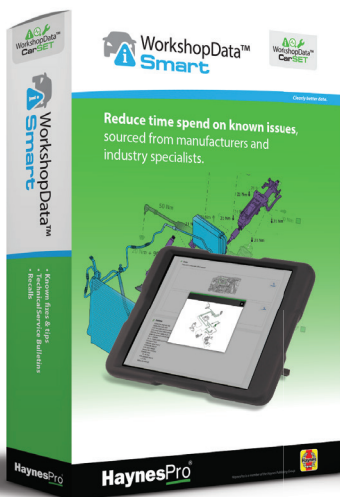
WorkshopData is the name of our database; it's the result of over 20 years' experience of data management which has endowed us with unparalleled insights into bespoke data supply and manipulation for the benefit of our customers. Crucially, we're not only an automotive company that understands information technology, but it is also an IT company that understands the automotive sector.

In essence, WorkshopData enables the professional mechanic to diagnose, maintain and repair modern vehicles, be they cars, light commercial vehicles or trucks. It can be presented in many compelling ways. These variations on presentation include displaying the data in our own familiar and much respected form, or tailoring it to suit customers' requirements with their own branding, layout and colours through data exchange services.

As in everything that HaynesPro does, there's a logic even to the name of our trio of car maintenance tools. Considered singly, the three modules are called **Smart, Electronics** and **Tech**. Together they form the acronym, SET. Examining each in turn throws open the window on HaynesPro's world.



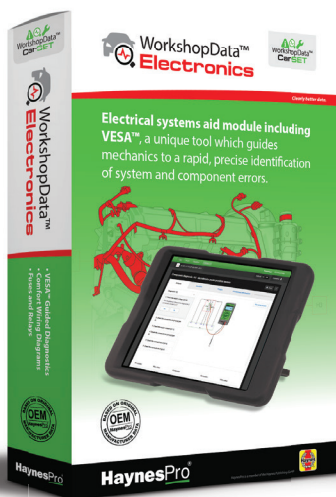
WorkshopData™ Smart



Reduce time spend on known issues, sourced from manufacturers and industry specialists.

Read on page 4

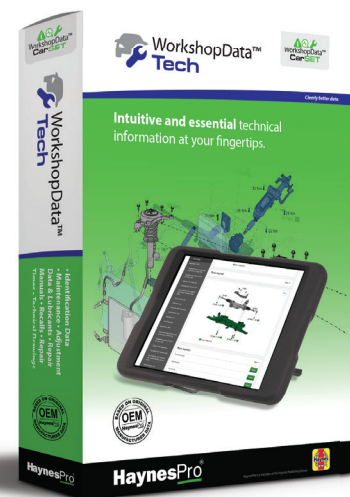
WorkshopData™ Electronics



A unique tool which guides mechanics to a **rapid, precise identification** of system and component errors.

Read on page 6

WorkshopData™ Tech

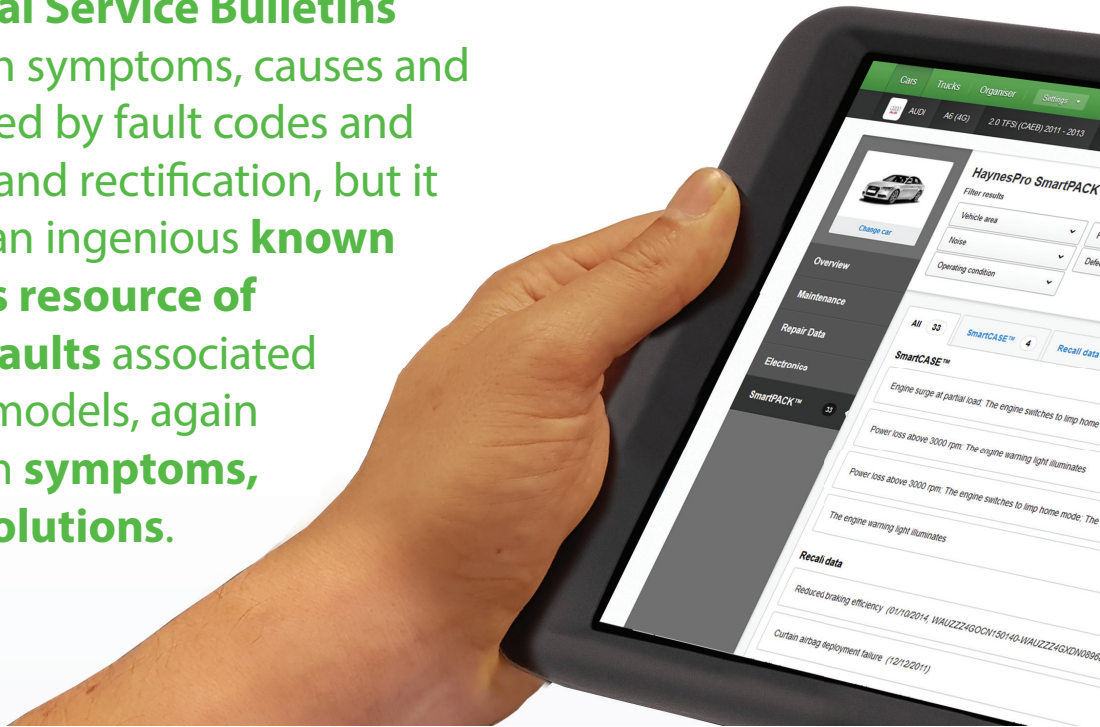


Intuitive and essential technical information at your fingertips.

Read on page 8

WorkshopData™ Smart

Not only does our Smart module contain OEM **Technical Service Bulletins** complete with symptoms, causes and fixes, supported by fault codes and their analysis and rectification, but it also features an ingenious **known fixes and tips resource of uncommon faults** associated with specific models, again complete with **symptoms, causes and solutions**.



TECHNICAL SERVICE BULLETINS (SMARTFIX™)

Instantly check the availability of **Technical Service Bulletins**.

With a simple mouse click, the mechanic can instantly check the availability of Technical Service Bulletins for a given vehicle. All the data complies with the OEM documentation.

PART	SUBJECTS
TSB's	<ul style="list-style-type: none"> • Technical Service Bulletins • Link to fault codes and related cases

[All](#) 33
 [SmartCASE™](#) 4
 [Recall data](#) 2
 Technical Service Bulletin

Technical Service Bulletins

- The transmission warning light illuminates; Vehicle judder when moving off (16/04/2015)
- Whining noise from the transmission at 60 - 70 km/h (16/04/2015)

Symptom
Oil leakage under the vehicle

Cause
Oil leakage from the automatic transmission

Solutions
Check the /

Repair time

All 33 SmartCASE™ 4 Recall data 2 Technical Service Bul

SmartCASE™

Engine surge at partial load; The engine switches to limp home mode; The engine warning light illuminates

Power loss above 3000 rpm; The engine warning light illuminates

KNOWN FIXES AND TIPS (SMARTCASE™)

Sourced from **industry experts.**

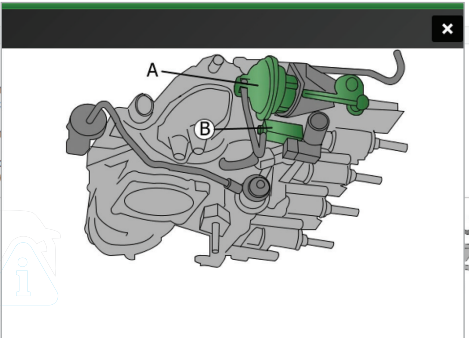
This feature of Smart extends HaynesPro's coverage from OEM based technical data to information sourced from industry experts and renowned helpdesk organisations. It's a unique database module containing cases, with verified fixes and tips, for vehicles on the European market. It helps the independent workshop to check quickly for solutions to uncommon problems for a selected vehicle, so saving time and money. As with all HaynesPro products, it offers clearly formulated and appropriate solutions, enabling every mechanic to work with the data.



Symptom

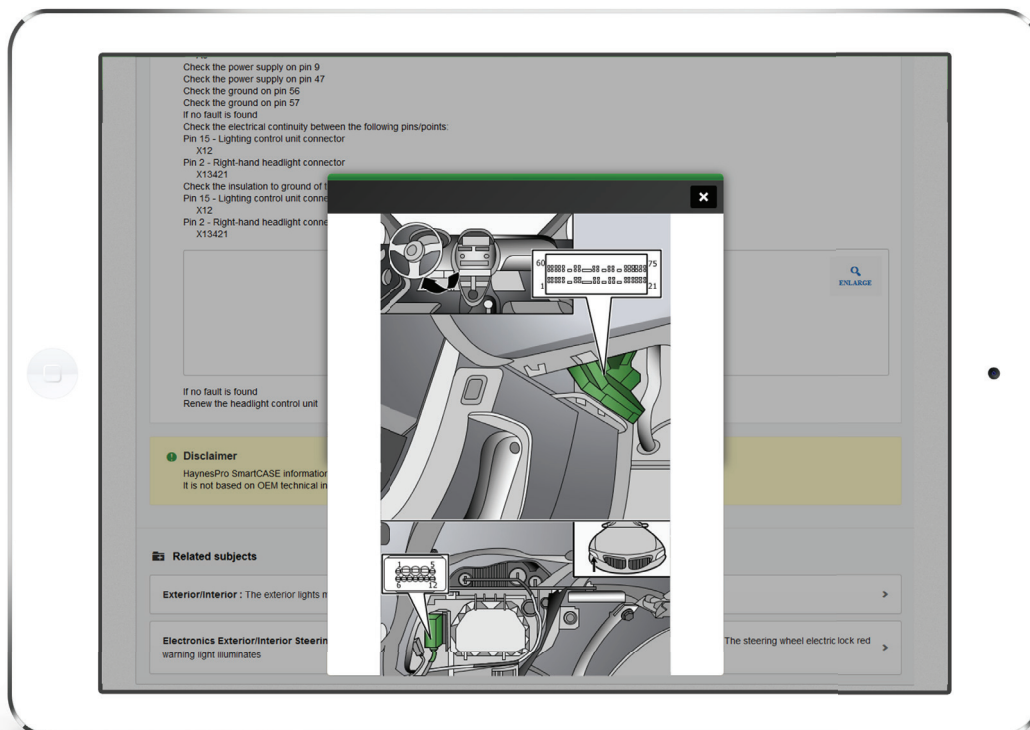
Power loss above 3000 rpm
The engine warning light illuminates
Engine control unit:
Fault codes:
P2008
08200
P2015
08213

Cause

Variable in
Faulty vac
Location:
Variable in
A
Vacuum co
B (N31)



PART	SUBJECTS
 Known fixes and tips	<ul style="list-style-type: none"> • Verified fixes and tips • Link to fault codes and related cases
 Recalls	<ul style="list-style-type: none"> • Link to fault codes and related cases



Check the power supply on pin 9
Check the power supply on pin 47
Check the ground on pin 56
Check the ground on pin 57
If no fault is found
Check the electrical continuity between the following pins/pins:
Pin 15 - Lighting control unit connector
X12
Pin 2 - Right-hand headlight connector
X13421
Check the insulation to ground of
Pin 15 - Lighting control unit connector
X12
Pin 2 - Right-hand headlight connector
X13421

If no fault is found
Renew the headlight control unit

Disclaimer
HaynesPro SmartCASE information
It is not based on OEM technical information

Related subjects

Exterior/Interior: The exterior lights n
>

Electronics Exterior/Interior steering
warning light illuminates

The steering wheel electric lock red
>



WorkshopData™ Electronics


HaynesPro's electronic data has always been an important aid to workshops but with **electrical systems and advanced technologies** becoming an ever more significant feature in modern cars, it's now becoming essential. At its heart sits HaynesPro's exclusive **Vehicle Electronics Smart Assistant (VESA)**.



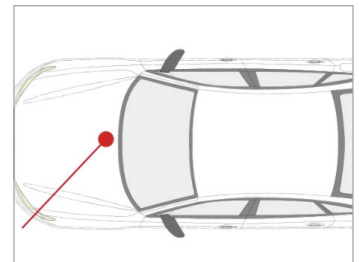
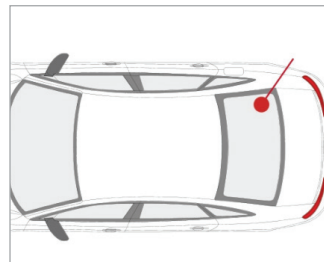
FUSES AND RELAYS

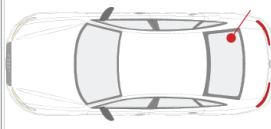
Clear fuse location and identification feature.

Ever helpful, HaynesPro has created an Electronics module packed with essential information, typified by this clear fuse location and identification feature.

PARTS	SUBJECTS
 Fuses & Relays	<ul style="list-style-type: none"> • Fuse and relay box locations • Fuse and relay overview

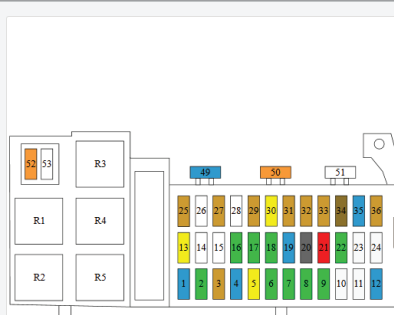
Fuse box No. 1 in passenger compartment, (- 2014), LHD (Left-hand drive view)	>
Fuse box No. 1 in passenger compartment, (2015 -), LHD (Left-hand drive view)	>





Left-hand drive is shown


1	Trailer detection control unit (15A)
2	Air-conditioning control unit Heated seat control unit (30A)
3	Connector (5A)
4	Seat ventilation Front right (15A)



VESA GUIDED DIAGNOSTICS

An innovative electronics diagnostics tool.


Probably unrivalled in the aftermarket arena, VESA is an innovative electronics diagnostics tool using data retrieved from the vehicle's CAN-Bus system to help mechanics diagnose fault codes and component errors. It takes an OEM's often bewildering and unfamiliar wiring schematic, translates it to a clearer, more readable format and then zooms in on the component and wiring under consideration. It features sub-menus (scheme, location, picture, component information and initialisation) that enable the user to 'drill down' to even more detail for even greater clarity and support. Includes fault codes and CAN-Bus overview.

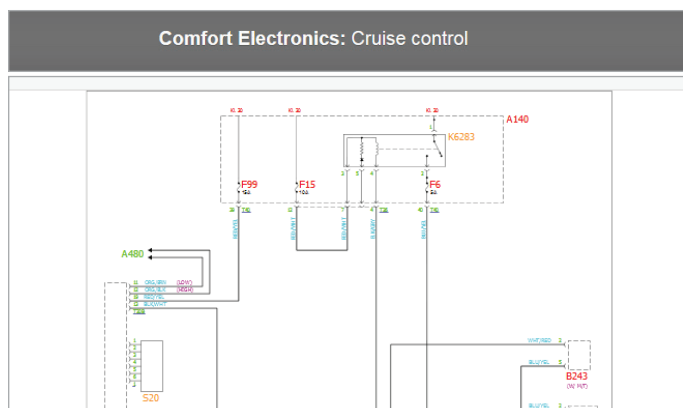
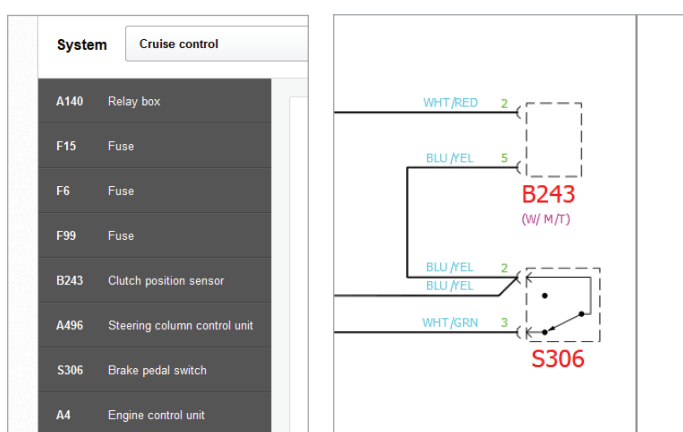
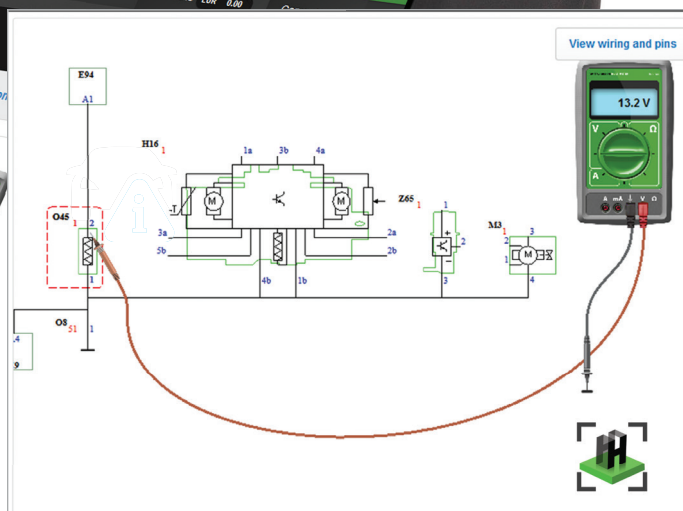
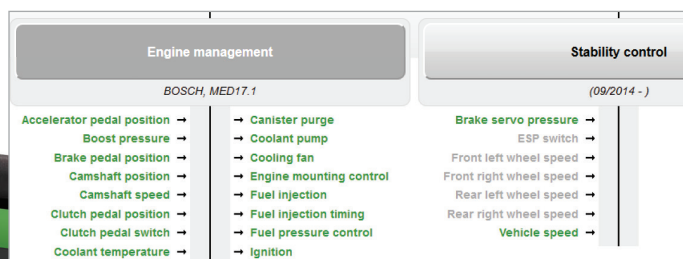
PART	SUBJECTS
 VESA™	<ul style="list-style-type: none"> • Wiring diagrams for engine management, ABS, ESP and air conditioning • Component locations and information • Fault codes (manufacturer's and EOBD) • Diagnostics wizard • Ground point locations • Link fault codes to Smart Pack

COMFORT WIRING DIAGRAMS

Clear, 'localised' wiring schematics.

The Comfort Wiring Diagram module includes diagrams on a range of electronic systems, including climate control, radio, door locks, power windows, security, ABS and instrument cluster control, to name but a few. All diagrams use standard symbols, are available as fullcolour vector graphics, and are easily printable. We currently offer the most comprehensive set of wiring diagrams on the market.

PART	SUBJECTS
 Comfort Wiring Diagrams	<ul style="list-style-type: none"> • Full colour wiring diagrams covering e.g. climate control, radio, door locks, airbags, anti-theft, headlights • Pan and zoom functionality • Highlight functionality to trace corresponding wires and components



WorkshopData™ Tech


HaynesPro Tech is an **intuitive, easy-to-use system**, honed over many years of development. The module features extended vehicle search options and **easy-to-use navigation**.



IDENTIFICATION DATA

Tech features a **VIN locator as standard**.


A VIN (vehicle identification number) is a unique serial number used by the automotive industry to identify individual vehicles. It is also key to determining a vehicle's legality and status. Locating the VIN plate can be time-consuming so Tech features a VIN locator as standard. This shows the precise location of the VIN plate on the vehicle. In addition, when the VIN number is entered into the Tech search, the VIN decoder will identify the vehicle whenever possible. It will also present additional information, including the engine code, TecDoc and European Type Approval details.

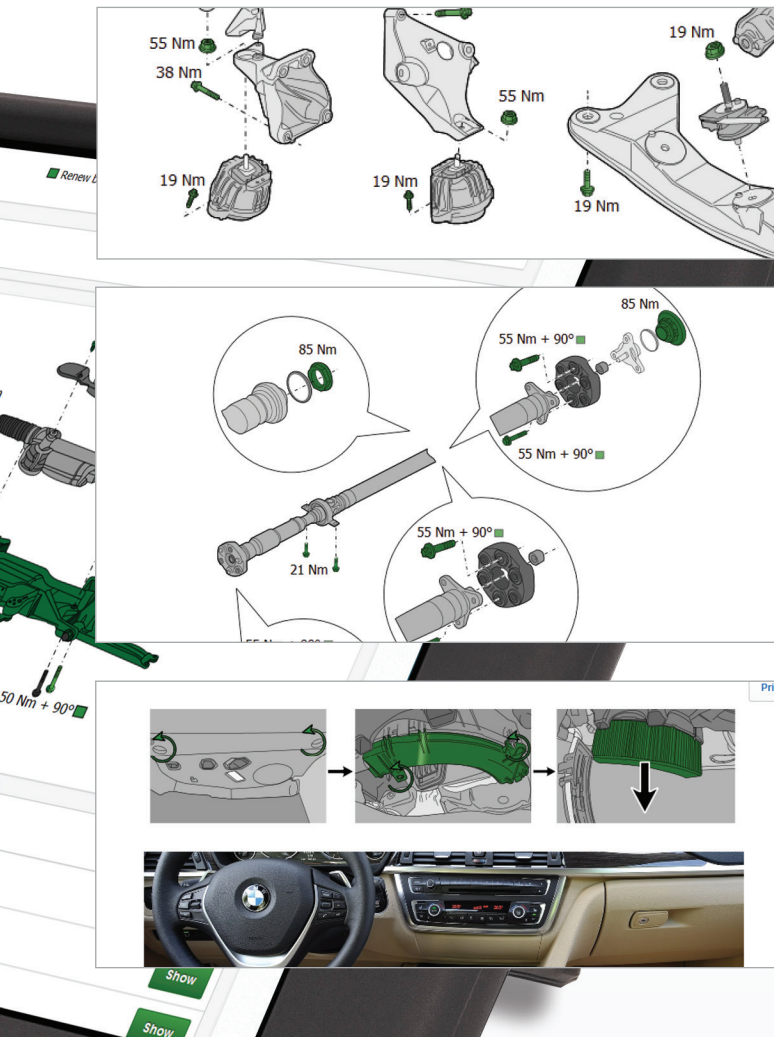
PART	SUBJECTS
 Identification Data	<ul style="list-style-type: none"> VIN and identification plate locations VIN decoder

TECHNICAL DRAWINGS

Over **100,000 high-quality technical drawings.**

HaynesPro has over 100,000 high-quality technical drawings in its database. Far from being generic images, these are bespoke illustrations with feature parts highlighted for ease of identification.


PART	SUBJECTS
 Technical Drawings	<ul style="list-style-type: none"> • Links to generic parts • Torque settings

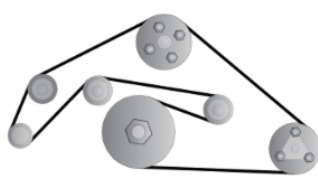


ADJUSTMENT DATA

‘**Comprehensive**’ doesn’t begin to describe the extent.

‘Comprehensive’ doesn’t begin to describe the extent of the information contained in this section of Tech. The specifications provided range from torque settings to cylinder firing order, from idle speed to NOx emissions, and from cooling system cap pressure to rear brake disc thickness.

PART	SUBJECTS
 Adjustment Data	<ul style="list-style-type: none"> • Ancillary drive belt • European type approval data • Emission data • Tyre sizes and pressures • Torque settings • Air-conditioning service connectors

Oil pressure at idle speed	> 0.8
Oil pressure	> 1.5 / 2000
Maximum cylinder head distortion	0.1
Diesel particulate filter: maximum ash deposit mass	0.420
Drive belt layout	
	
Emissions	
Emissions	
Idle speed, minimum	650
Idle speed, maximum	850
Fast-idle speed	2300 - 2700
Oil temperature during test	80
Corrected smoke absorption value	0.5
Test time	0.5
Exhaust gas analysis test method (Germany only)	B
Fuel consumption, combined usage	6.30 - 6.70

MAINTENANCE

Clear, comprehensive and, above all, helpful.

HaynesPro maintenance guides are clear, comprehensive and, above all, helpful. Full maintenance schedules, which are printable for convenience, are provided for make – model – derivative, presented by intervals and broken down by vehicle area (engine, steering, etc.). Where necessary, there are links to detailed and annotated technical drawings of components, showing their locations, and also to subsections relating to additional aspects of the job. There are instructions on how to disconnect and reconnect batteries, program ignition keys and reset service indicators and tyre pressure monitoring systems. Additional work is also displayed, for example relating to a car with a high total mileage at the time of routine service. Times are provided for all jobs and a total is displayed at the foot of the page.

PART	SUBJECTS
Maintenance	<ul style="list-style-type: none"> Maintenance schedules (OEM-based) Printable work sheets Links to generic parts Follow-up tasks Additional tasks Service times Service indicator reset Timing belt renewal intervals Tyre pressure monitoring system

Every 120,000 km/96 months (OE: 01 03 004...)

Parts required

Additional work 6

- OE: 24 24 19 63 Renew the air filter every 90,000 km
- OE: 28 70 20 63 Renew the spark plugs every 60,000 km/72 months
- OE: 37 02 55 50 CVT: renew the oil every 60,000 km
- OE: 01 40 00 50 Renew the brake fluid first change at 36 months; then every 24 m
- OE: 85 18 19 50 Renew the dust and pollen filter every 30,000 km/24 months
- OE: 60 05 29 50 Clean/lubricate the sunroof mechan every 30,000 km

* Parts may be required Repair Manuals

EXTRA TIME	TOTAL TIME (H)
0.00	1.60

Show ▾

Hide ▾

+ 0.20	+
+ 0.40	+
+ 0.50	+
+ 0.30	+
+ 0.10	+
+ 0.50	+

Engine

Renew the engine oil *
Engine sump, including filter 4.6 (l)

Engine oil drain plug (Renew the bolt) 30 (Nm)

Go to Lubricants page

Renew the oil filter *
Oil filter 20 - 24 (Nm)

Check the engine for damage

FOLLOW UP Remove/refit drive belt

Check the wiring looms in the engine compartment for

Check the fuel lines, hoses and connections for leaks

Clean the plenum chamber

Cooling system: check for leaks. Check the level and

REPAIR TIMES

A more realistic timeframe.

Not just the more commonly quoted single component repair time but one recalculated by HaynesPro to allow for multiple related tasks to give a more realistic timeframe.

The module specifies individual repair items and calculates their cost. As it takes account of follow-up as well as additional work, no labour items are overlooked - either in the cost specification or the invoice. This helps to maximise workshop revenue.

PART	SUBJECTS
Repair Times	<ul style="list-style-type: none"> Overlap technology Manual times

Jobs

- Time/distance dependent service
Every 120,000 km/96 months
- Renew left lower support-/guide link (front axle)
- Check compression
- Illuminate cylinder with endoscope * (opening e
- Remove/refit left lower support-/guide link (front

[+ Add Job](#)

* Parts may be required

Parts

Engine oil

	Rate (EUR)	Time (h)
	0.00	1.6
	0.00	1.2
	0.00	0.7
	0.00	0.3
	0.00	1.2

Lubricants and Fluids

Unit Price (EUR)

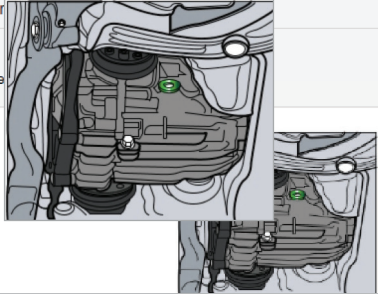
0

Differential: Rear differential, (0BC), (4WD)

Gear oil (Preferred specification) VW G 052 145 S2

Gear oil (Alternative specification) VW G 052 145 A1


- Differential, 4WD, r
- Plug location (Filler)



LUBRICANTS AND FLUIDS

Technical illustrations showing the location.

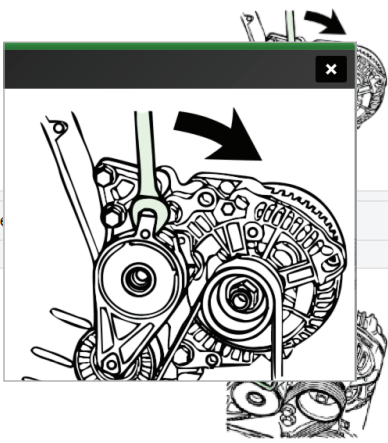
Again, all conceivable specifications are provided here, conveniently linked to related data for ease of use and featuring technical illustrations showing the location of filler and drain orifices.

PARTS	SUBJECTS
 Lubricants & Fluids	<ul style="list-style-type: none"> Capacities and viscosities

Removal

Note: At removal, mark the direction of rotation; when refitting ensure the drive belt rotation

Turn the tensioner clockwise to release the belt tension



Lock the tensioner


Remove the ancillary drive belt

Installation

REPAIR MANUALS

Detailed, step-by-step maintenance instructions.

Helpfully, Tech features detailed, step-by-step maintenance instructions for those jobs which, while being relatively routine, require specific procedures for the car in question. Again, technical illustrations are provided and, where necessary, reference numbers for identifying special tools. In this way, Tech helps boost productivity and improve workshop workflow.

PART	SUBJECTS
 Repair Manuals	<ul style="list-style-type: none"> Timing belt; removal/installation Timing chain; removal/installation Ancillary drive belt; removal/installation Clutch; removal/installation Manual transmission; removal/installation Cooling system; drain/refill Cylinder head; removal/installation Engine assembly; removal/installation Airbag; removal/installation

Recall data

Power loss (10/03/2014 23/03/2009-05/02/2014)

Reduced braking efficiency (02/07/2013, JTDKN36U**1000010-JTDKN36U**1092028, 10/03/2014 23/03/2009-05/02/2014)

Loss of power steering (03/12/2012, JTDKB20U**3000015-JTDKB20U**3546422)


Loss of power steering (03/12/2012, JTDKB20U**7000003-JTDKB20U**7893861)

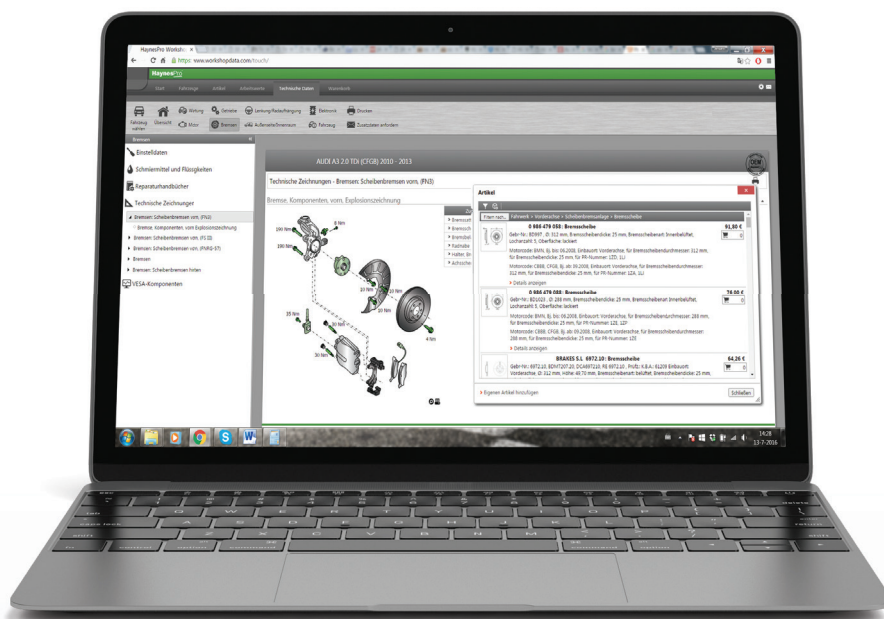
Loss of power steering (03/12/2012, JTDKB22U**0002646-JTDKB22U**0002646)

RECALL DATA

Ensure that the vehicle conforms to safety standards.

Helping to ensure that the vehicle conforms to safety standards, HaynesPro Tech also features official OEM recall data.

PART	SUBJECTS
 Recall Data	<ul style="list-style-type: none"> Recalls (OEM-based)



IT SOLUTIONS

Limited only by **your imagination.**

Data itself is like a liquid. It can be 'frozen' into a fixed form, much like HaynesPro WorkshopData's CarSET and TruckSET. Capable of being continuously refreshed and updated, these off-the-shelf products present customers with a comprehensive, one-stop solution. Conveniently, they are in modular form, so customers can add to them as demand dictates.

HaynesPro data can be extracted to combine with other parts of a customer's products to help achieve their goals. We call this 'data integration' and for some customers it releases the full potential of HaynesPro data. More importantly, it enhances their business. In fact, the potential of HaynesPro data is limited only by imagination. As digital and automotive technologies develop and new opportunities reveal themselves, that potential is only just being realized.

Portal-to portal

In essence, WorkshopData enables the professional mechanic to diagnose, maintain and repair modern vehicles, be they cars, light commercial vehicles or trucks. It can be presented in many compelling ways. These variations on presentation include displaying the data in our own familiar and much respected form, or tailoring it to suit customers' requirements with their own branding, layout and colours through data exchange services.

Data exchange services

HaynesPro provides all of its data via data exchange services (also called web services or application programming interface – API). This infinitely versatile medium enables us to tailor the data we provide to the customer's precise needs.

Clearly better data.

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